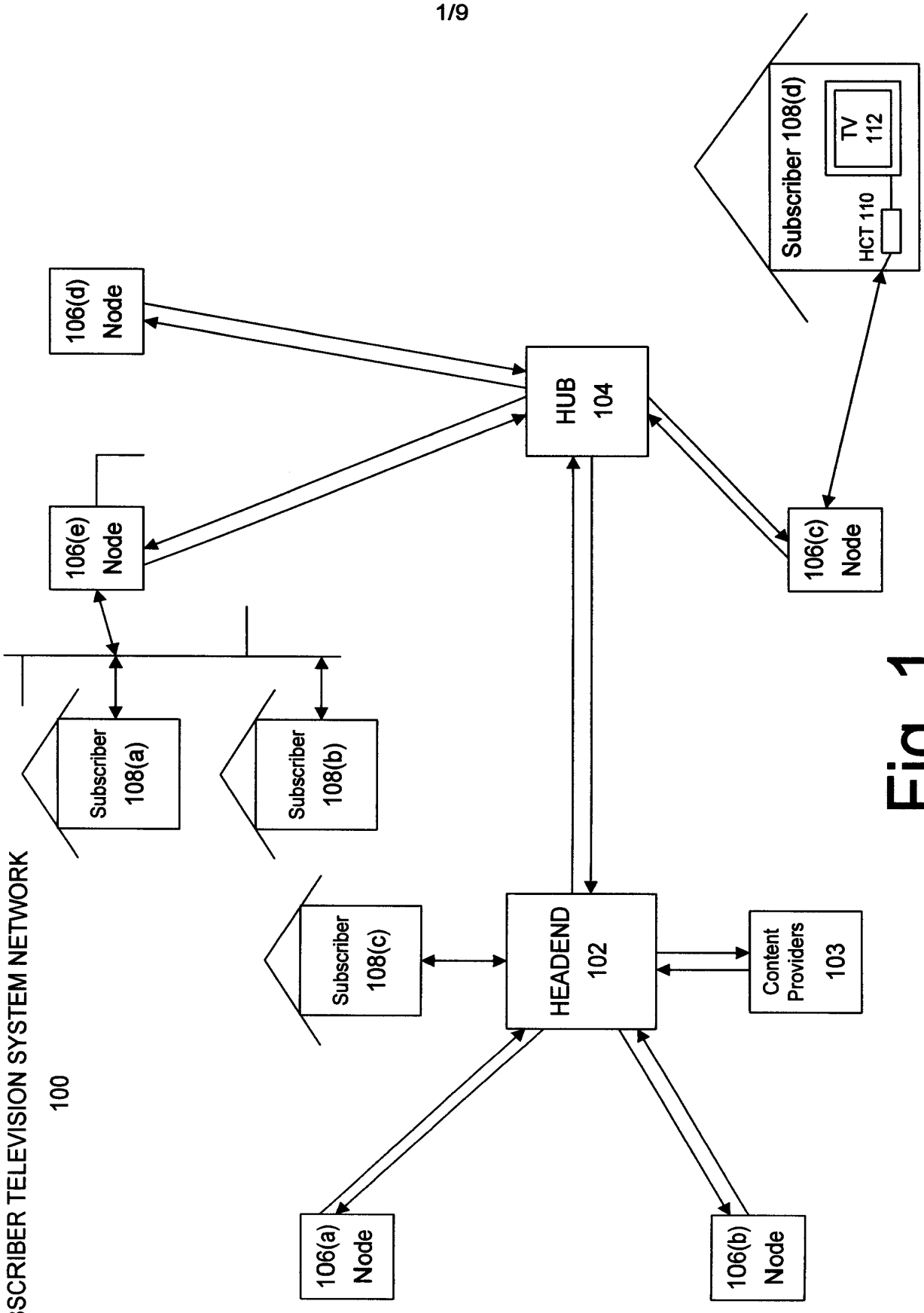
SUBSCRIBER TELEVISION SYSTEM NETWORK
100
HEADEND
102
HUB
104
Content Providers
103
106(a) Node
106(b) Node
106(c) Node
106(d) Node
106(e) Node
Subscriber 108(a)
Subscriber 108(b)
Subscriber 108(c)
Subscriber 108(d)
TV 112
HCT 110

Fig. 1

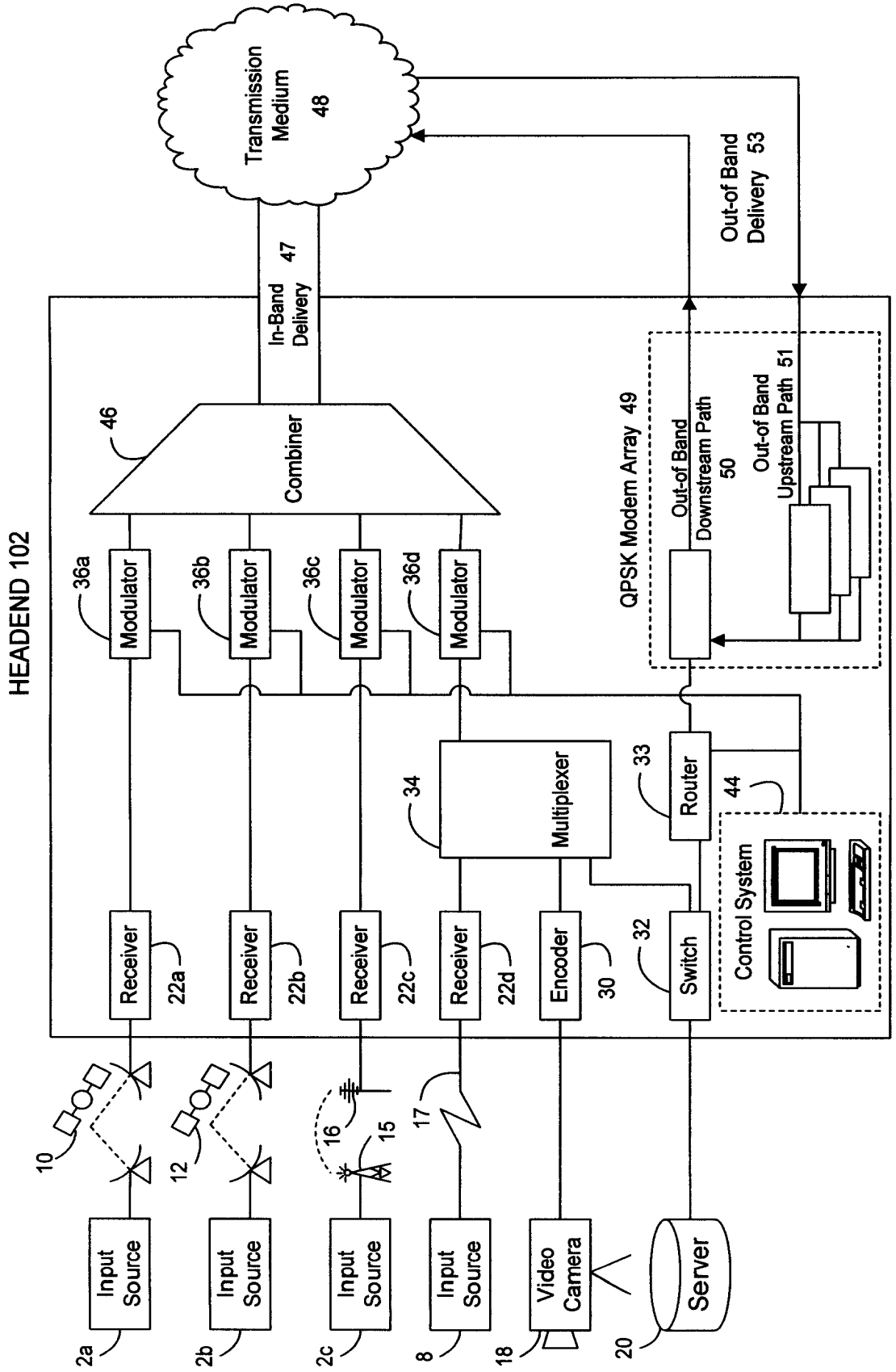
HEADEND 102
Transmission Medium 48
In-Band Delivery 47
Out-of Band Delivery 53
Combiner 46
Modulator 36a
Modulator 36b
Modulator 36c
Modulator 36d
QPSK Modem Array 49
Out-of Band Downstream Path 50
Out-of Band Upstream Path 51
Multiplexer 34
Router 33
Control System 44
Receiver 22a
Receiver 22b
Receiver 22c
Receiver 22d
Encoder 30
Switch 32
Input Source 2a
Input Source 2b
Input Source 2c
Input Source 8
Video Camera 18
Server 20
10
12
16
15
17

Fig. 2

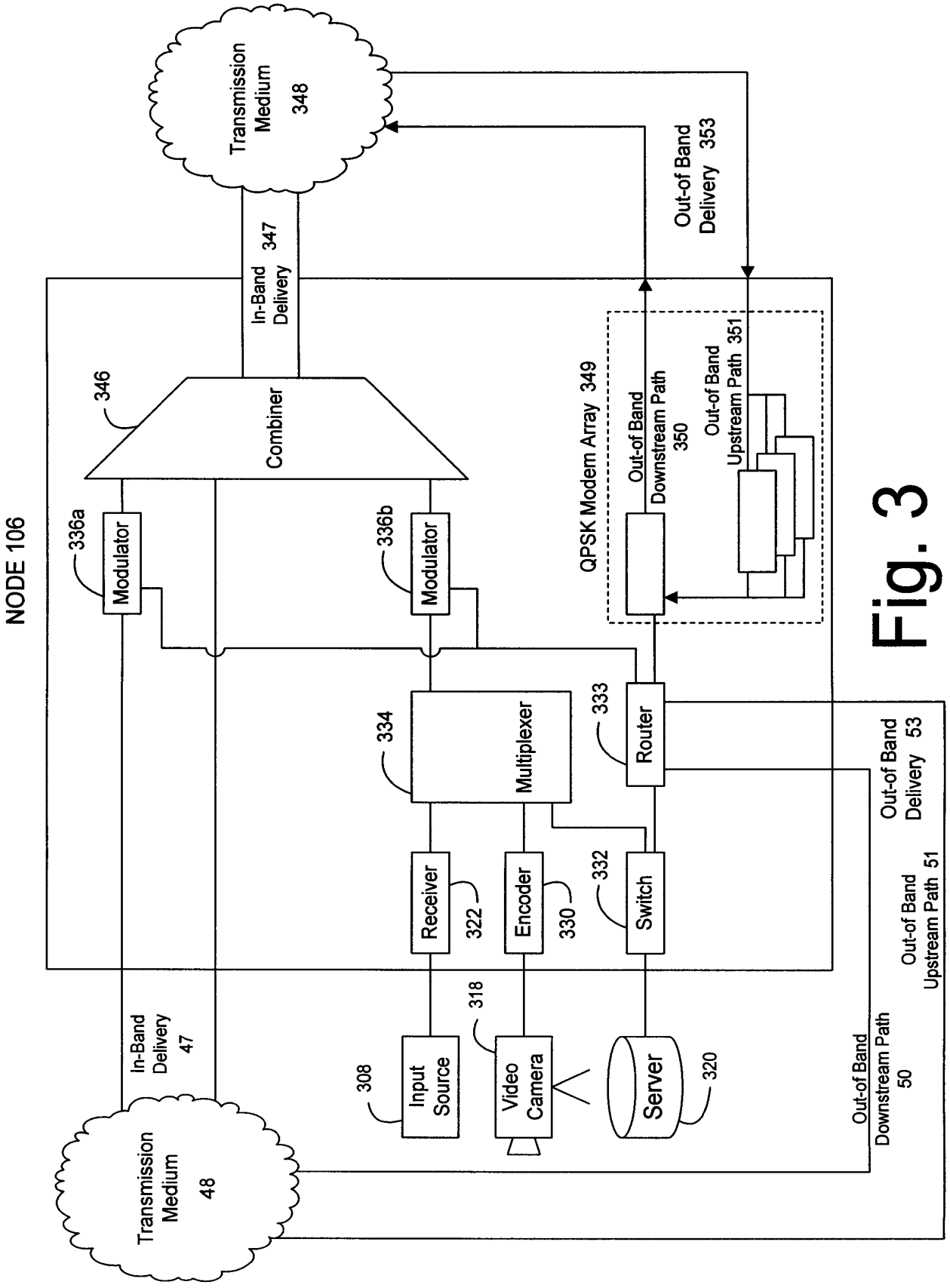
NODE 106
Transmission Medium 348
In-Band Delivery 347
Out-of Band Delivery 353
Combiner
346
336a
Modulator
336b
Modulator
QPSK Modem Array 349
Out-of Band Downstream Path 350
Out-of Band Upstream Path 351
334
Multiplexer
333
Router
Receiver
322
Encoder
330
332
Switch
Out-of Band Delivery 53
Out-of Band Upstream Path 51
In-Band Delivery 47
308
Input Source
318
Video Camera
Server
320
Out-of Band Downstream Path 50
Transmission Medium 48

Fig. 3

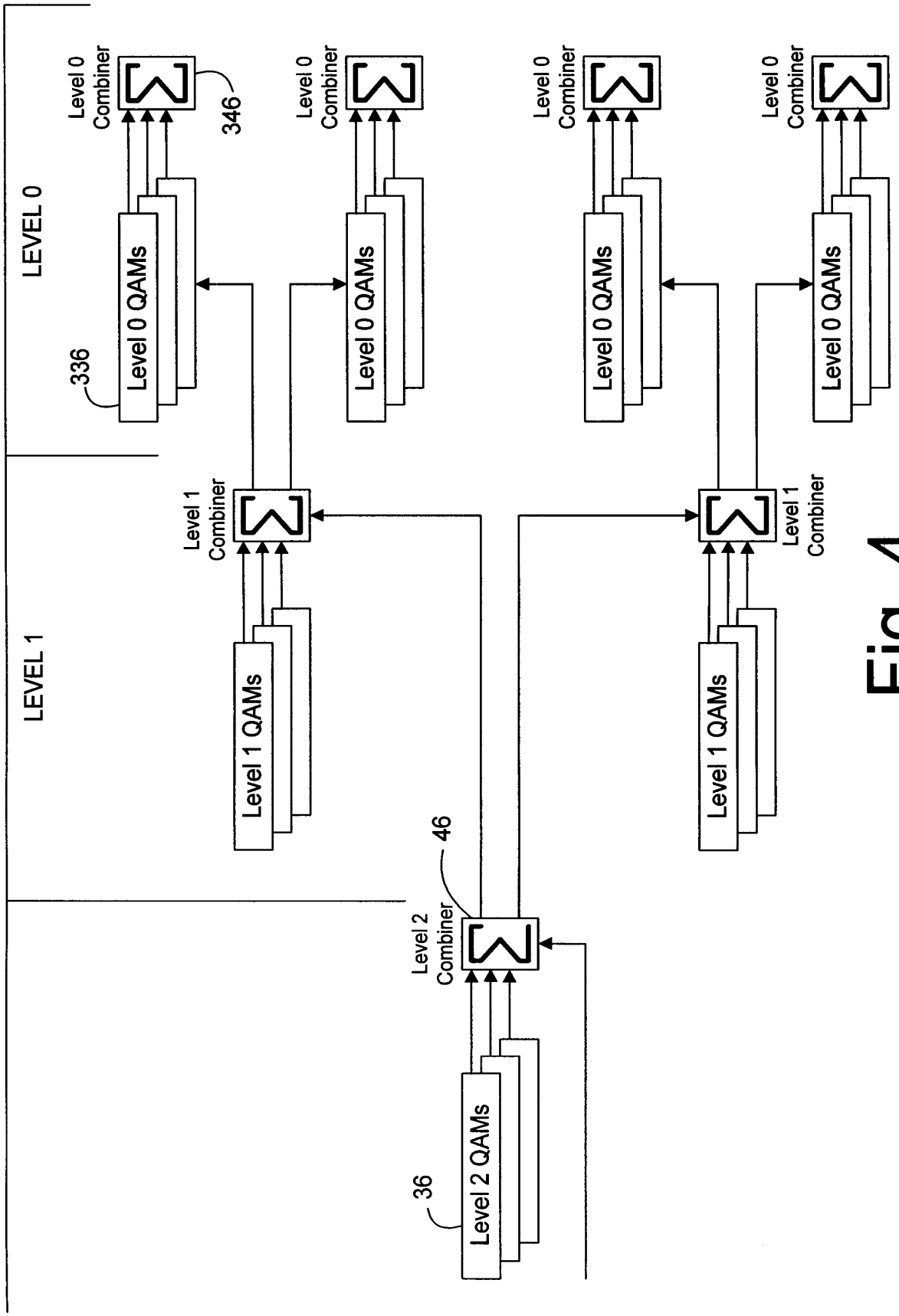
LEVEL 0
LEVEL 1
Level 0 Combiner
346
Level 0 QAMs
336
Level 1 Combiner
Level 1 QAMs
Level 2 Combiner
46
Level 2 QAMs
36

Fig. 4

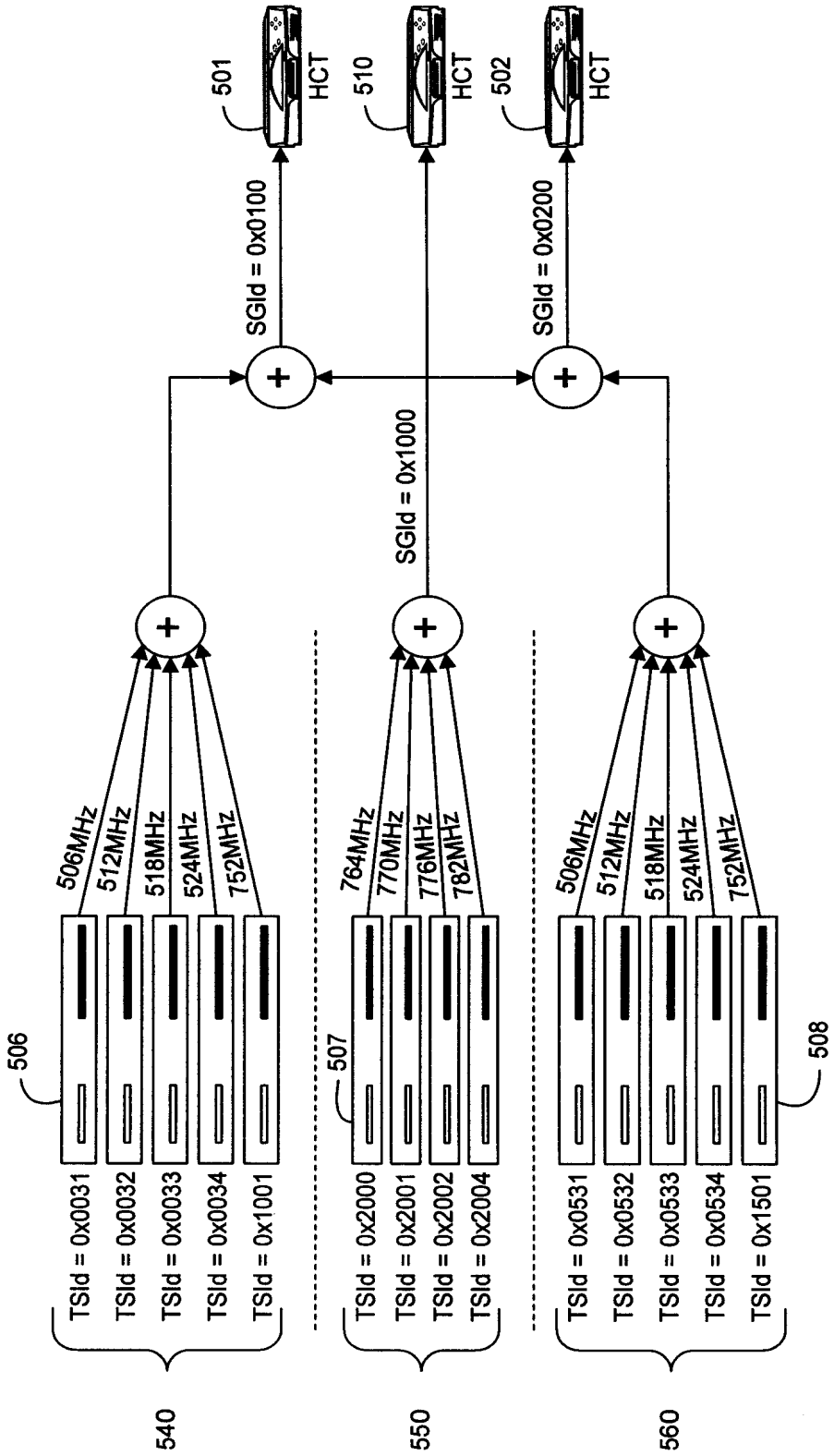
501
HCT
510
HCT
502
HCT
SGId = 0x0100
SGId = 0x1000
SGId = 0x0200
506MHz
512MHz
518MHz
524MHz
752MHz
764MHz
770MHz
776MHz
782MHz
506MHz
512MHz
518MHz
524MHz
752MHz
506
507
508
TSId = 0x0031
TSId = 0x0032
TSId = 0x0033
TSId = 0x0034
TSId = 0x1001
TSId = 0x2000
TSId = 0x2001
TSId = 0x2002
TSId = 0x2004
TSId = 0x0531
TSId = 0x0532
TSId = 0x0533
TSId = 0x0534
TSId = 0x1501
540
550
560

Fig. 5

SERVICE GROUP MAP TABLE 600

602 604 606 608

TSId	SGId	transmission_ system	inner_ coding_ mode	split_ bitstream_ mode	modulation_ format	symbol_ rate	frequency
mapVersion = 126							
mapEntries = 14							
0x0031	0x0100	2 (ITU-B)	7 (rate 3/4 coding)	0 (no)	8 (QAM 64)	27000000 (27 Msym/sec)	506 MHz
0x0032	0x0100	2	7	0	8 (QAM 64)	27000000	512 MHz
0x0033	0x0100	2	7	0	8 (QAM 64)	27000000	518 MHz
0x0034	0x0100	2	7	0	8 (QAM 64)	27000000	524 MHz
0x1001	0x0100	2	7	0	8 (QAM 64)	27000000	752 MHz
0x0531	0x0200	2 (ITU-B)	7 (rate 3/4 coding)	0 (no)	8 (QAM 64)	27000000 (27 Msym/sec)	506 MHz
0x0532	0x0200	2	7	0	8 (QAM 64)	27000000	512 MHz
0x0533	0x0200	2	7	0	8 (QAM 64)	27000000	518 MHz
0x0534	0x0200	2	7	0	8 (QAM 64)	27000000	524 MHz
0x1501	0x0200	2	7	0	16 (QAM 256)	38000000 (38 Msym/sec)	752 MHz
0x2000	0x1000	2	7	0	16 (QAM 256)	38000000	764 MHz
0x2001	0x1000	2	7	0	16 (QAM 256)	38000000	770 MHz
0x2002	0x1000	2	7	0	16 (QAM 256)	38000000	776 MHz
0x2003	0x1000	2	7	0	16 (QAM 256)	38000000	782 MHz

Fig. 6

SERVICE GROUP ASSOCIATION METHOD 700

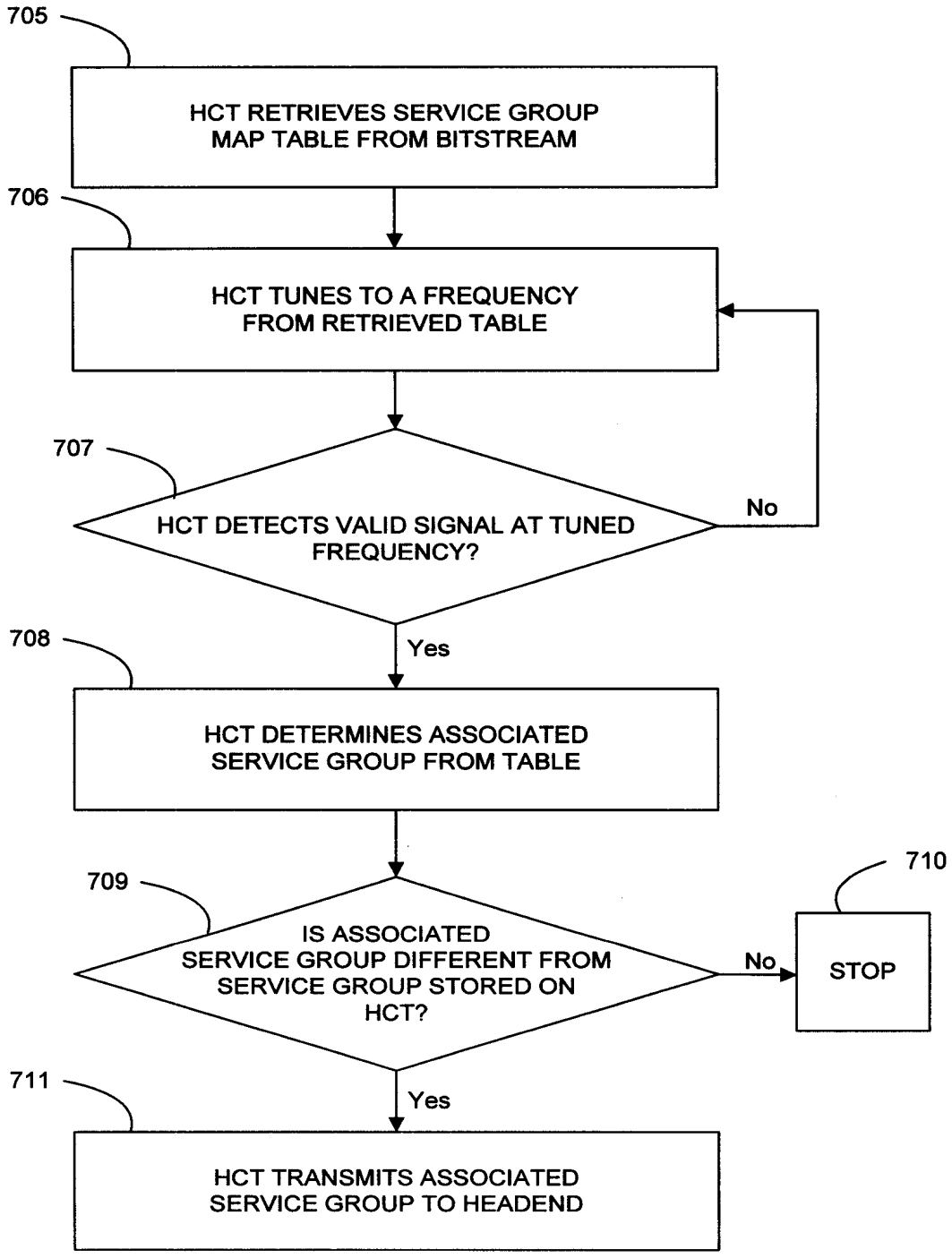

Fig. 7

MODULATOR TUNING TABLE 800

804 802

transmission_ system	inner_ coding_ mode	split_ bitstream_ mode	modulation_ format	symbol_ rate	frequency
mapEntries = 10					
2 (ITU-B)	7 (rate 3/4 coding)	0 (no)	8 (QAM 64)	27000000 (27 Msym/sec)	506 MHz
2	7	0	8 (QAM 64)	27000000	512 MHz
2	7	0	8 (QAM 64)	27000000	518 MHz
2	7	0	8 (QAM 64)	27000000	524 MHz
2	7	0	8 (QAM 64)	27000000	752 MHz
2	7	0	16 (QAM 256)	38000000 (38 Msym/sec)	752 MHz
2	7	0	16 (QAM 256)	38000000	764 MHz
2	7	0	16 (QAM 256)	38000000	770 MHz
2	7	0	16 (QAM 256)	38000000	776 MHz
2	7	0	16 (QAM 256)	38000000	782 MHz

Fig. 8

SERVICE GROUP AUDIT METHOD 900

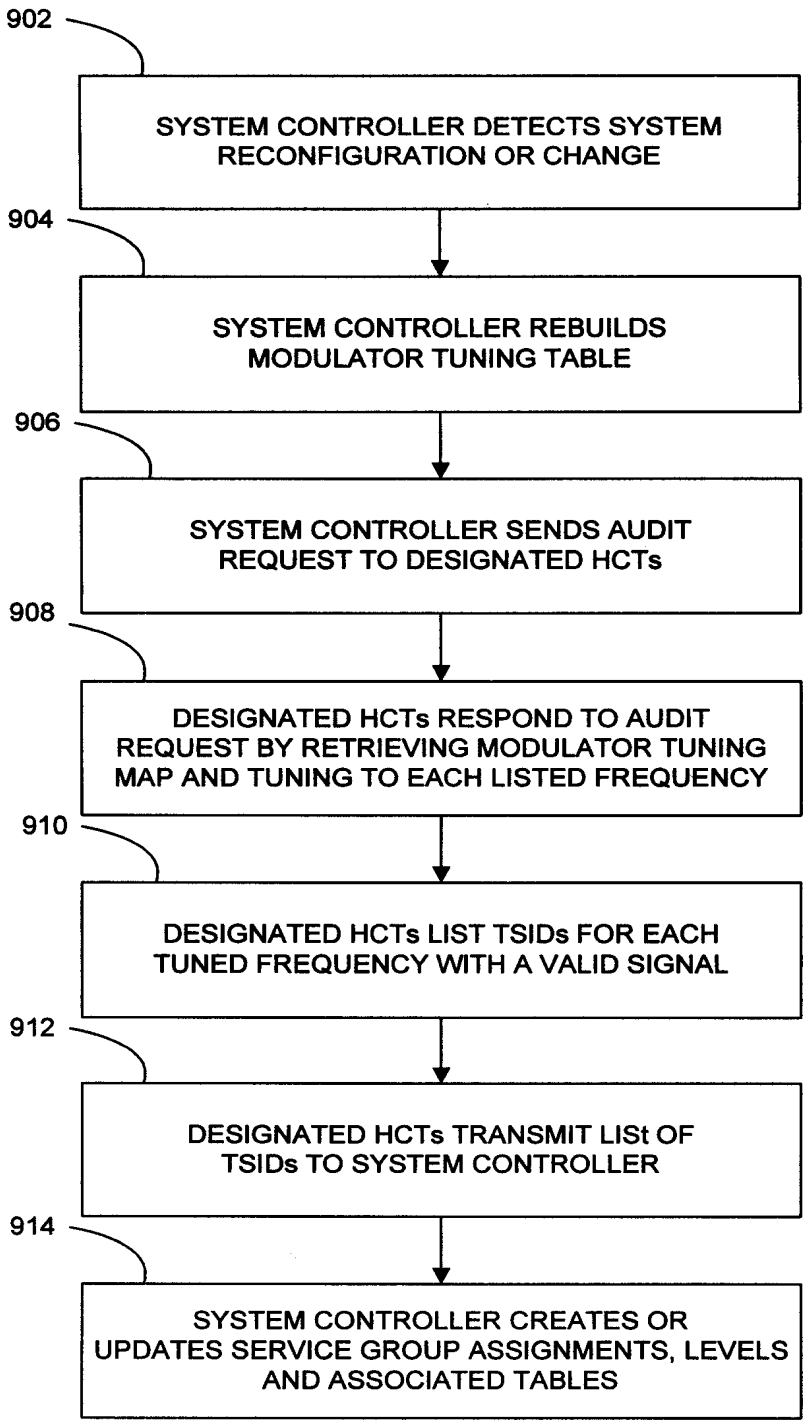

Fig. 9